

(19)  **Europäisches Patentamt**  
**European Patent Office**  
**Office européen des brevets**



(11) **EP 0 733 787 A2**

(12) **EUROPEAN PATENT APPLICATION**

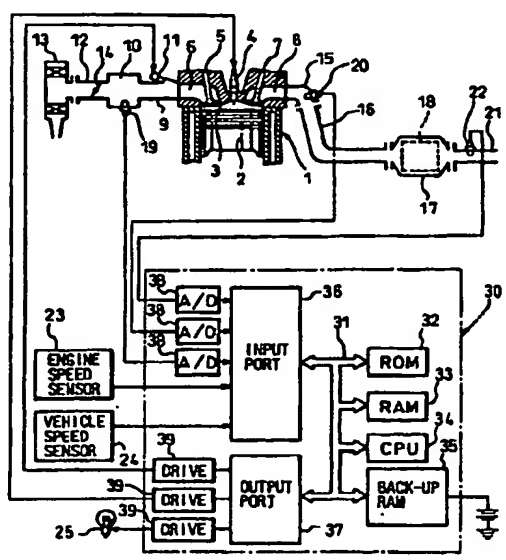
(43) Date of publication: 25.09.1996 Bulletin 1996/39  
(51) Int. Cl.<sup>6</sup>: F01N 3/08, F01N 9/00  
(21) Application number: 96104625.7  
(22) Date of filing: 22.03.1996

<p>(84) Designated Contracting States: DE FR GB</p> <p>(30) Priority: 24.03.1995 JP 65947/95</p> <p>(71) Applicant: TOYOTA JIDOSHA KABUSHIKI KAISHA Aichi-ken (JP)</p> <p>(72) Inventors:  <ul style="list-style-type: none"> <li>Asanuma, Takamitsu Toyota-shi, Aichi (JP)</li> <li>Kihara, Tetsuro Toyota-shi, Aichi (JP)</li> </ul> </p>	<ul style="list-style-type: none"> <li>Takeshima, Shinichi Toyota-shi, Aichi (JP)</li> <li>Tanaka, Toshiaki Toyota-shi, Aichi (JP)</li> <li>Kato, Kenji Toyota-shi, Aichi (JP)</li> <li>Iguchi, Satoshi Toyota-shi, Aichi (JP)</li> </ul> <p>(74) Representative: Vollhals, Aurel et al Patentanwälte Tiedtke-Bühling-Kinne &amp; Partner Bavariaring 4 80336 München (DE)</p>
---	--

(54) **An exhaust purification device of an engine**

(57) An exhaust purification device of an engine providing a NO<sub>x</sub> absorbent arranged in the exhaust passage. An O<sub>2</sub> sensor generating a current proportional to the air-fuel ratio is arranged in the engine exhaust passage downstream of the NO<sub>x</sub> absorbent. The amount of NO<sub>x</sub> actually absorbed in the NO<sub>x</sub> absorbent at the time of release of the NO<sub>x</sub> is calculated on the basis of the output signal of this O<sub>2</sub> sensor. On the basis of this calculated amount of NO<sub>x</sub>, correction is made so that the estimated amount of NO<sub>x</sub> represents the actual amount of absorption of NO<sub>x</sub>. When this corrected estimated amount of NO<sub>x</sub> reaches a set value, the action of releasing the NO<sub>x</sub> from the NO<sub>x</sub> absorbent is carried out.

Fig.1



EP 0 733 787 A2